

WHAT IS CLAIMED IS:

1. An image search apparatus which searches for an image by using

image storage means for storing a plurality of
5 images,

region information storage means for storing partial images included in the respective images stored in the image storage means in correspondence with the respective images, and

10 region feature storage means for storing features of the partial images stored in the region information storage means in correspondence with the partial images, comprising:

image feature designation means for designating a
15 feature of a search target image;

candidate image determination means for searching features of partial images in the region feature storage means on the basis of the feature of the image which is designated by said image feature designation
20 means, and determining an image which is made to correspond to a partial image obtained on the basis of a search result as a candidate image from the images stored in the image storage means; and

search result display means for displaying a
25 reduced image of the candidate image determined by said candidate image determination means,

wherein said search result display means displays

a reduced image of the candidate image upon enlarging the partial image included in the candidate image.

2. The apparatus according to claim 1, characterized in that when a plurality of candidate images are
5 obtained on the basis of a search result, said search result display means displays reduced images of the plurality of candidate images in the form of a list.

3. An image search apparatus which searches for an image by using

10 image storage means for storing a plurality of images,

region information storage means for storing partial images included in the respective images stored in the image storage means in correspondence with the
15 respective images, and

region feature storage means for storing features of the partial images stored in the region information storage means in correspondence with the partial images, comprising:

20 image feature designation means for designating a feature of a search target image;

candidate image determination means for searching features of partial images in the region feature storage means on the basis of the feature of the image
25 which is designated by said image feature designation means, and determining an image which is made to correspond to a plurality of partial images obtained on

the basis of a search result as a candidate image from the images stored in the image storage means; and

search result display means for displaying a reduced image of the candidate image determined by said candidate image determination means,

wherein said search result display means displays a reduced image of the candidate image upon enlarging the plurality of partial images included in the candidate image.

4. The apparatus according to claim 3, characterized in that said search result display means synthesizes the plurality of partial images to generate a new single partial image, and displays the new single partial image as a reduced image.

5. The apparatus according to claim 4, characterized in that said search result display means generates a new single partial image by synthesizing the plurality of partial images while a relative positional relationship between the plurality of partial images is kept.

6. The apparatus according to claim 3, characterized in that when the plurality of partial images partly overlap, said search result display means generates a new single partial image by synthesizing the plurality of partial images.

7. The apparatus according to claim 3, characterized in that sizes of the plurality of partial images are

unified to a predetermined size.

8. An image search apparatus which searches for an image by using

image storage means for storing a plurality of
5 images,

region information storage means for storing partial images included in the respective images stored in the image storage means in correspondence with the respective images, and

10 region feature storage means for storing features of the partial images stored in the region information storage means in correspondence with the partial images, comprising:

image feature designation means for designating a
15 feature of a search target image;

candidate image determination means for searching features of partial images in the region feature storage means on the basis of the feature of the image which is designated by said image feature designation
20 means, and determining an image which is made to correspond to a partial image obtained on the basis of a search result as a candidate image from the images stored in the image storage means; and

search result display means for displaying a
25 reduced image of the candidate image determined by said candidate image determination means in a plurality of patterns.

9. The apparatus according to claim 8, characterized in that said search result display means displays the plurality of reduced images in the form of a list.

10. The apparatus according to claim 8, characterized in that said search result display means displays a reduced image of the candidate image.

11. The apparatus according to claim 8, characterized in that said search result display means displays a reduced image of the partial image used to determine the candidate image.

12. The apparatus according to claim 8, characterized in that said search result display means alternately displays the reduced images at the same position one by one in an automatic manner.

13. The apparatus according to claim 8, characterized in that

the apparatus further comprises switching means for switching display of the reduced images in said search result display means, and

20 said search result display means alternately displays the reduced images at the same position one by one on the basis of a switching instruction from said switching means.

14. The apparatus according to claim 1, characterized in that said search result display means displays the reduced image in an area with a predetermined size.

15. The apparatus according to claim 1, characterized

in that the partial image comprises a rectangular image having a region surrounded by a circumscribed rectangle of a predetermined object region included in the image.

16. The apparatus according to claim 1, characterized
5 in that said search result display means displays a reduced image of the candidate image while emphasizing the partial image included in the candidate image.

17. The apparatus according to claim 1, characterized
in that the region feature storage means stores, as a
10 feature of the image, at least one of concept information expressing a concept obtained from the partial image, language information expressing the concept in a language, an image feature expressing a feature of the partial image, and a combination of the
15 concept information, the language information, and the image feature.

18. An image search method for an image search
apparatus which can be connected to
an image storage unit which stores a plurality of
20 images,

a region information storage unit which stores
partial images included in the respective images stored
in the image storage unit in correspondence with the
respective images, and

25 a region feature storage unit which stores
features of the partial images stored in the region
information storage unit in correspondence with the

partial images, comprising:

an image feature designation step of designating a feature of a search target image;

a candidate image determination step of searching
5 features of partial images in the region feature
storage unit on the basis of the designated feature of
the image, and determining an image which is made to
correspond to a partial image obtained on the basis of
a search result as a candidate image from the images
10 stored in the image storage unit; and

a search result display step of enlarging the
partial image included in the determined candidate
image and displaying a reduced image of the candidate
image.

15 19. An image search method for an image search
apparatus which can be connected to

an image storage unit which stores a plurality of
images,

a region information storage unit which stores
20 partial images included in the respective images stored
in the image storage unit in correspondence with the
respective images, and

a region feature storage unit which stores
features of the partial images in the region
25 information storage unit in correspondence with the
partial images, comprising:

an image feature designation step of designating

a feature of a search target image;

a candidate image determination step of searching features of partial images stored in the region feature storage unit on the basis of the designated feature of the image, and determining an image which is made to correspond to a plurality of partial images obtained on the basis of a search result as a candidate image from the images stored in the image storage unit; and

a search result display step of enlarging the plurality of partial images included in the determined candidate image and displaying a reduced image of the candidate image.

20. An image search method for an image search apparatus which can be connected to

an image storage unit which stores a plurality of images,

a region information storage unit which stores partial images included in the respective images stored in the image storage unit in correspondence with the respective images, and

a region feature storage unit which stores features of the partial images stored in the region information storage unit in correspondence with the partial images, comprising:

an image feature designation step of designating a feature of a search target image;

a candidate image determination step of searching

features of partial images in the region feature
storage unit on the basis of the designated feature of
the image, and determining an image which is made to
correspond to a partial image obtained on the basis of
5 a search result as a candidate image from the images
stored in the image storage unit; and

a search result display step of displaying a
reduced image of the determined candidate image in a
plurality of patterns.

10 21. A program for causing a computer, which can be
connected to

an image storage unit which stores a plurality of
images,

a region information storage unit which stores
15 partial images included in the respective images stored
in the image storage unit in correspondence with the
respective images, and

a region feature storage unit which stores
features of the partial images in the region
20 information storage unit in correspondence with the
partial images, to execute

an image feature designation step of designating
a feature of a search target image;

a candidate image determination step of searching
25 features of partial images in the region feature
storage unit on the basis of the designated feature of
the image, and determining an image which is made to

correspond to a partial image obtained on the basis of
a search result as a candidate image from the images
stored in the image storage unit; and

5 a search result display step of enlarging the
partial image included in the determined candidate
image and displaying a reduced image of the candidate
image.

22. A computer-readable recording medium storing a
program defined in claim 21.

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